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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,694	09/11/2001	Shunpei Yamazaki	07977/283001/US5205/5210/	8590
26171	7590	03/20/2006	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			LIANG, REGINA	
			ART UNIT	PAPER NUMBER
			2674	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/954,694	Applicant(s) YAMAZAKI ET AL.	
	Examiner Regina Liang	Art Unit 2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-128 is/are pending in the application.
- 4a) Of the above claim(s) 2-8, 10, 11, 14-16, 18-20, 22-28, 30, 31 and 33-128 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 9, 12, 13, 17, 21, 29 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9-11-01</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 2-8, 10, 11, 14-16, 18-20, 22-28, 30, 31, 33-128 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Claim 1 is not generic to claims 2-9, 11-13, 15-17, 19-29, 31-41, 43-53, 55-65, 67 and 68. Election was made **without** traverse in the reply filed on 2/13/06.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9, 12, 13, 21, 29, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimazu (US. PAT. NO. 6,784,874) in view of Kawada et al (US. PAT NO. 6,774,872 hereinafter Kawada).

As to claim 1, Shimazu discloses an electronic device (portable information terminal) comprising a plurality of operation keys (see Fig. 2 and 3 for example, keys 12), each of the operation keys comprising: a transparent button (col. 7, lines 4-12; col. 9, lines 14-15); a pixel portion formed below the button (LCD 2 has display portions 11 formed below the key portion 12); a driver circuit for controlling the pixel portion (col. 7, lines 16-25, col. 8, lines 24-30; the PC board 17 inherent has a driver circuit for controlling the display portion to display texts or image on the LCD 2); wherein a signal to be input as information to the electronic device by the

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operation keys is displayed in the pixel portion (col. 7, lines 16-39, col. 8, lines 24-30 for example).

Shimazu does not disclose the pixel portion and the driver circuit are formed over the same substrate. However, Fig. 3 of Kawada teaches a LCD device having a substrate 11, and the display portion and the driver circuit (21) are formed over the same substrate 11. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device Shimazu to have the pixel portion and the driver circuit formed over the same substrate as taught by Kawada so as to provide a high density mounting of the driver integrated circuit chips with reduced thickness (col. 2, lines 61-62 of Kawada).

As to claims 9 and 12, note the discussion of claim 1 above. Furthermore, Shimazu teaches the electronic device having a controller (IC chip) and the IC chip including a memory (col. 14, lines 24-29 for example).

As to claim 13, Shimazu teaches the controller (IC chip) including a memory (col. 14, lines 24-29), thus, the controller and the memory are formed over the same substrate.

As to claims 21, 29 and 32, Shimazu teaches the display comprising a plurality of pixels comprising EL elements (col. 7, lines 62-63).

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimazu and Kawada as applied to claim 9 above, and further in view of Motegi et al (US. PAT. NO. 6,246,388).

As to claim 17, Shimazu as modified by Kawada does not disclose the memory is one of a flash memory and a mask ROM. However, Motegi teaches a memory device comprising a

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mask ROM (col. 2, lines 2-4). Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the memory of Shimazu as modified by Kawada to comprising a mask ROM as taught by Motegei so as to provide a non-volatile memory with character data that is less likely to change.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tak (US. PAT. NO. 5,515,045) teaches multipurpose optical intelligent keyboard apparatus.


Jaeger (US. PAT. No. 5,867,149) teaches a switch key image display and operator/circuit interface.

Shattuck (US. PAT. NO. 4,022,993) teaches a switch assembly having electrically illuminated character display devices between transparent actuators and switch arrays.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Regina Liang
Primary Examiner
Art Unit 2674

3/10/06